

EXHIBIT 2



LARRY E. HARRAH, II
FAYETTE COUNTY PROSECUTING ATTORNEY

108 E Maple Street
Fayetteville, West Virginia 25840-1226

October 7, 2019

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 043 US)*
NATIONAL GRID NE HOLDINGS 2 LLC
[Successor to Eastern Gas and Fuel Associates]
9 RIVERSIDE ROAD
WESTON, MA 02493, and

NATIONAL GRID NE HOLDINGS 2 LLC *Via Registered Mail (RR 601 038 057 US)*
c/o Stanford M. Calderwood, Trustee
136 Fletcher Road
Belmont, MA 02178

HAWKS NEST MINING COMPANY

a dissolved West Virginia Business Corporation, solely to the extent of its undistributed assets, specifically including the remaining limits of its available liability coverage under liability insurance policies issued to it and its officers and directors by **St. Paul Mercury Insurance Company:**

ST. PAUL MERCURY INSURANCE COMPANY *Via Registered Mail (RR 601 038 065 US)*
c/o CORPORATION SERVICE COMPANY
(Statutory Agent for St. Paul Mercury Insurance Co.)
209 W. WASHINGTON ST
CHARLESTON, WV, 25302

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 074 US)*
PEABODY ENERGY COROPORATION
[Successor to Peabody Coal Company]
PEABODY PLAZA
701 MARKET STREET
ST. LOUIS, MO 63101

ENVIRONMENTAL AND PUBLIC HEALTH PROTECTION UNIT

159 Summers Street
Charleston, West Virginia 25301-2134
Telephone: 304-343-6500
Facsimile: 304-343-6528
E-Mail: mcallaghan@neelycallaghan.com

Michael O. Callaghan
Chief Assistant Prosecuting Attorney
Environmental & Public Health Protection

PEABODY ENERGY COROPORATION *Via Certified Mail (7018 1130 0002 3182 9727)*
c/o COROPORATION SERVICE COMPANY
(Its Statutory Agent)
251 LITTLE FALLS DRIVE
WILMINGTON, DE 19808

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 088 US)*
PARDEE MINERALS, LLC
1717 ARCH ST 33RD FLOOR
PHILADELPHIA, PA, 19103, and

PARDEE MINERALS, LLC *Via Certified Mail (7018 1130 0002 3182 9734)*
c/o CORPORATION SERVICE COMPANY
Its Statutory Agent
209 WEST WASHINGTON STREET
CHARLESTON, WV, 25302

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 091 US)*
POWELLTON TIMBERLANDS LLC
1717 ARCH ST 33RD FLOOR
PHILADELPHIA, PA, 19103, and

POWELLTON TIMBERLANDS LLC *Via Certified Mail (7018 1130 0002 3182 9741)*
c/o CORPORATION SERVICE COMPANY
Its Statutory Agent
209 WEST WASHINGTON STREET
CHARLESTON, WV, 25302

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 105 US)*
POWELLTON MINERALS LLC
1717 ARCH ST 33RD FLOOR
PHILADELPHIA, PA, 19103, and

POWELLTON MINERALS LLC *Via Certified Mail (7018 1130 0002 3182 9758)*
c/o CORPORATION SERVICE COMPANY
Its Statutory Agent
209 WEST WASHINGTON STREET
CHARLESTON, WV, 25302

Any Officer or Managing or General Agent *Via Registered Mail (RR 601 038 114 US)*
QUERCUS WEST VIRGINIA, LLC
1512 EAST FRANKLIN STREET
SUITE 104
CHAPEL HILL, NC, 27514

QUERCUS WEST VIRGINIA, LLC *Via Certified Mail (7018 1130 0002 3182 9765)*
c/o COGENCY GLOBAL INC.
Its Statutory Agent
1627 QUARRIER STREET EAST
CHARLESTON, WV, 25311

EASTERN ASSOCIATED COAL LLC

[Successor to Eastern Associated Coal, Inc.]

a dissolved West Virginia Business Corporation, solely to the extent of its undistributed assets, specifically including the remaining limits of its available liability coverage under liability insurance policies issued to it and its officers and directors by **ACE American Insurance Company**

ACE American Insurance Company *Via Registered Mail (RR 601 038 128 US)*

c/o Paul Bech

(Statutory Agent for **ACE American Insurance Company**)

436 Walnut Street

WAO4K Philadelphia, PA 19106

**RE: Imminent and Substantial Endangerments to Health and the Environment
Caused or Contributed to by the Past and Present Management and Disposal
of Solid Wastes and Hazardous Wastes within the Johnson Fork of Loop
Creek Watershed in Fayette County, West Virginia**

**Notice of Endangerment and Conditional Notice of Intent to File a Federal
Civil Action Pursuant to Section 7002(a)(1)(B) of the Resource Conservation
and Recovery Act of 1976, as amended, 42 U.S.C. § 6972(a)(1)(B)**

To all Addressees:

Pursuant to West Virginia Code § 7-4-1(a), this Office represents the County Commission of Fayette County, West Virginia, a political subdivision of the State of West Virginia, acting on its own behalf and of behalf of the Fayette County Code Enforcement Agency, the Fayette County Board of Health and the Fayette County Solid Waste Authority, (hereinafter: **“Governmental Claimant”**) with respect to the Solid Waste, Hazardous Waste and Hazardous Substance contamination and attendant actual or imminently threatened harms and endangerments to health or the environment at or emanating from your present or former facilities or properties, which are located within the Johnson Fork of Loop Creek Watershed within Fayette County, West Virginia (hereinafter: **“Receiving Watershed”** or **“Subject Watershed”**). This letter is a Notice of Endangerment, issued pursuant to section 7002(b)(2) of the federal Resource Conservation and Recovery Act of 1976, as amended (hereinafter: **“RCRA”** or **“federal Hazardous Waste Management Act”**) 42 U.S.C. § 6972(b)(2), to the following entities:

NATIONAL GRID NE HOLDINGS 2 LLC (Successor in interest

to EASTERN GAS AND FUEL ASSOCIATES)
HAWKS NEST MINING COMPANY
PEABODY COAL COMPANY
PARDEE MINERALS, LLC
POWELLTON TIMBERLANDS LLC
POWELLTON MINERALS LLC
EASTERN ASSOCIATED COAL INC.
QUERCUS WEST VIRGINIA, LLC

(Collectively, the “**Potentially Responsible Parties**” or “**PRP’s**”). This notice is also being sent to all persons listed on **Exhibit 1**. This letter also constitutes the Claimants’ notice of their conditional intent to file a “citizen suit,” pursuant to RCRA Section 7002(a)(1)(B), 42 U.S.C. § 6972(a)(1)(B) to address either or both the **PRP’s** creation of or contributions to conditions arising from the past or present management of Solid Wastes or Hazardous Wastes, which conditions **present or may present an imminent and substantial endangerment to health or the environment** (“Notice”) within the **Receiving Watershed**, and which conditions are set forth below, based on currently available information. The undersigned counsel, whose address and telephone number listed above, represent the **Governmental Claimant** giving notice.

I. THE JOHNSON FORK OF LOOP CREEK WATERSHED AND THE MINING ACTIVITIES ADVERSELY AFFECTING ITS WATERS AND SEDIMENTS:

The Johnson Fork Watershed (hereinafter: “**Subject Watershed**”) is a part of greater Loop Creek, of the Kanawha River. The Johnson Fork Watershed, as used in this notice of endangerment, is from the confluence with Loop Creek, at the community of Kincaid (38° 2'17.35"N, 81°16'14.83"W), up-stream on Johnson Fork in a southerly direction to the headwaters of Johnson Fork and includes all tributaries of Johnson Fork, to the top of the watershed at Kingston Mountain (38° 0'5.72"N, 81°16'21.11"W) (“Johnson Fork Receiving Watershed”). Please see **Exhibits 2-7** depicting the area and mining activity.

a. Responsibility of Mining Companies as Past Operators of Mining Facilities within the Subject Watershed:

Since the late 1800’s and continuing into the present, various companies have conducted or are conducting surface mining and underground mining (with associated surface operations) within the **Subject Watershed**. These operations include those of the Mining Companies identified above.

Eastern Gas and Fuel Associates and its predecessors created and operated underground mines, mining loadout facilities, material handling operations, and coal waste disposal areas, including the Powellton Number 6 Mine, in the Powellton seam of coal within the **Subject Watershed** into the 1950’s. This ownership and operation occurred from approximately January 1, 1966 until June 27, 2003. Hawks Nest Mining Company operated mines, including the Doris Mine, on Johnson Fork within the **Subject Watershed** beginning in at least the mid to late 1970s.

Additionally, West Virginia Geologic and Economic Survey (WVGES) identifies Peabody Coal as operating an underground mine in the Powellton seam of coal on Johnson Fork within the **Subject Watershed**. Eastern Gas and Fuel Associates and its predecessors, Hawks New Mining Company and Peabody Coal Company and predecessors and successors were each operators of mining operations and facilities within the Subject Watershed and are, with respect to such operations and facilities, collectively referred to herein as “**The Mining Companies or the Mining Company Responsible Parties.**”

b. Responsibility of Past and Present Property Owners of Sites and Facilities Managing Solid Wastes and Hazardous Wastes within the Subject Watershed:

Eastern Gas and Fuel Associates and its predecessors previously owned in fee simple real property within the **Subject Watershed** which, during and after their period of ownership, was used to contain or operate mining facilities that, by their management and disposal of Solid Wastes, Hazardous Wastes and Hazardous Substance during and after the period of their ownership of the real property, caused and contributed to conditions within the **Subject Watershed** that present or may present an imminent and substantial endangerment to health or the environment, as described herein. This ownership was from approximately January 1, 1966 until June 27, 2003.

Peabody Coal Company and its predecessors previously owned in fee simple real property within the **Subject Watershed** which, during and after their period of ownership of the real property, was used to contain or operate mining facilities that, by their management and disposal of Solid Wastes, Hazardous Wastes and Hazardous Substance during and after the period of their ownership, caused and contributed to conditions within the **Subject Watershed** that present or may present an imminent and substantial endangerment to health or the environment, as described herein.

Eastern Associated Coal LLC, and its predecessors, own or have owned surface, mineral rights and fee simple property in the Upper Armstrong Creek area impacted by the mining activity. This ownership was from approximately January 1, 1966 until June 27, 2003.

Quercus West Virginia LLC currently owns, and has owned continuously since sometime in 2014, surface rights on real property that was previously used to conduct mining operations within the **Subject Watershed**, and which property has contained since its acquisition by Quercus, and which continues to contain: (1) mining facilities, including portals, on the surface of the property which have, by their past and continuing release into the environment of Solid Wastes, Hazardous Wastes and Hazardous Substances have contributed and are contributing to conditions that present or may present an imminent and substantial endangerment to health and the environment within the **Subject Watershed**; and (2) unlined “open dumps” on the surface of those lands that have since their creation and which continue to the present day to contribute pollution in the form of Solid Wastes, Hazardous Wastes, and Hazardous Substances to the groundwaters and, via transmission through the groundwater, the surface waters within the **Subject Watershed**, thus, causing and contributing to both a Public Nuisance with Fayette County and a condition which presents or may present an imminent and substantial endangerment to health and the environment within Fayette County, WV.

Pardee Minerals LLC and its predecessors previously owned in fee simple real property within the **Subject Watershed**, and continue to own mineral rights and fee simple property in the **Subject Watershed** which were during their period of ownership used to contain or operate mining facilities that, by their past and on-going management and disposal of Solid Wastes, Hazardous Wastes and Hazardous Substance, cause and contribute to conditions within the **Subject Watershed** that present or may present an imminent and substantial endangerment to health or the environment, as described herein. This ownership was from approximately 2003 until August 18, 2017 when Pardee Minerals LLC deeded the surface estate to Powellton Timberlands, LLC and the mineral estate was deeded to Powellton Minerals LLC.

The present owner of fee simple title to the **Subject Property** has, and the past owners of fee simple title to the **Subject Property** had during the period of their ownership, the legal authority and responsibility to control the use of their property to assure: (1) that it is not being used for illegal purposes; (2) that it is not being used to create or maintain any condition of Public Nuisance or any actual or imminently threatened endangerment of the Public Health, Safety, Welfare or the Environment.

The present owner of surface rights to real property within the **Subject Watershed** has, and the past owners of rights to real property within the **Subject Watershed** had during the period of their ownership, the legal authority and responsibility to control the use of their property to assure: (1) that it is not being used for illegal purposes; (2) that it is not being used to create or maintain any condition of Public Nuisance or any actual or imminently threatened endangerment of the Public Health, Safety, Welfare or the Environment.

Eastern Gas and Fuel Associates and its predecessors, Peabody Coal Company and its predecessors, Eastern Associated Coal LLC and its predecessors, Quercus West Virginia LLC and its predecessors, Pardee Minerals LLC and its predecessors and successors Powellton Timberlands, LLC and Powellton Minerals LLC, each as owners of fee simple, mining rights or surface rights in the **Subject Property**, are hereinafter collectively referred to as the “**Property Owners**” or the “**Property Owner Responsible Parties**.”

II. THE ADVERSE EFFECTS ON THE ENVIRONMENT WITH THE JOHNSON FORK WATERSHED CAUSED OR CONTRIBUTED TO BY THE RESPONSIBLE PARTIES:

The Responsible Parties are liable for remedial investigation of, and all necessary and proper abatement of, the harms and endangerments to health or the environment resulting from the past or present management or disposal of Solid Waste and Hazardous Waste contamination that has been and is being released into the environment at, and emanating into or from each of their respective operations and facilities where such contamination has come to be located, or threatens to be located, including the comingling of contaminants from multiple operations and facilities, which commingled contamination has caused or contributed to and continues to cause and contribute to a single, indivisible harm or endangerment to health or the environment within the **Subject Watershed**.

Loop Creek – of which Johnson Fork is a tributary - is listed on the WV § 303d list of impaired waters. Mining activities have caused and continue to cause impairments to these streams from permitted and unpermitted discharges, and from contaminated groundwater, from operations conducted by The Mining Companies. This contaminated surface water and groundwater forms a commingled plume with groundwater and surface water, and further commingles with groundwater and surface water from other Tributaries of Loop Creek, which is a tributary of Kanawha River. The contaminants in the Johnson Fork Receiving Watershed have contributed to and continue to contribute to the impairments of Loop Creek.

Additionally, public water supplies including those provided by the Page-Kincaid Public Service District within the **Subject Watershed**, have been severely and adversely impacted by groundwater in the Johnson Fork Receiving Watershed contaminated by operations conducted by the Mining Companies.

The coal seams themselves and mining waste material containing ore and mineral wastes that resulted from the extraction or processing of ores and minerals within the **Subject Watershed** and that were improperly disposed of continue to be the primary sources of Solid Waste and Hazardous Waste contaminants that have been and are being released into the environment in the watershed. It is through the mined coal seams and the coal-waste open dumps that air, water and disruptions in the hydrologic balance originate. Contaminated groundwater originates in the coal seams and open coal-waste dumps and migrates through the seams and adjacent rock layers and into the groundwaters and surface waters of the Johnson Fork and Johnson Fork Receiving Watershed. The operations of the Mining Companies have caused contamination to the groundwater within the Johnson Fork Receiving Watershed and the streams to which these groundwater resources are hydraulically connected. As a result of this contamination, contaminated groundwater poses an imminent and substantial endangerment to human health and the environment. Additionally, this contamination has comingled within and caused degradation of surface waters and sediment in Loop Creek to the point that they can no longer meet their designated uses under the Clean Water Act and appear on the WV § 303(d) list of impaired waters. The Loop Creek watershed is biologically impaired based on the narrative water quality criterion of 47 CSR 2–3.2.i, which prohibits the presence of wastes in state waters that cause or contribute to significant adverse impacts on the chemical, physical, hydrologic, and biological components of aquatic ecosystems. The streams suffering these adverse impacts from mining operations are receiving waters of Johnson Fork.

The Page-Kincaid Public Service District (PSD) draws its public water supply from a well within the Johnson Fork Watershed. This well has been severely and adversely impacted by groundwater contaminated by mining activities, caused considerable expense to the PSD in an attempt to treat this contaminated water, and degrades the water to the point it does not meet Safe Drinking Water Act standards.

It has been understood since at least the 1940s by the engineering and scientific community that it is generally impossible to mine coal and not impact groundwater and surface water unless certain management and engineering controls are in place to protect the environment. Both surface and subsurface mining disturb the hydrogeological environment in much the same way - especially by changing hydraulic conductivity, secondary porosity, vertical connectivity and geochemistry.

Except for chemicals added at the prep plant or introduced into the mine space by equipment or by mining/processing operations, most of the contaminants associated with coal mining are naturally occurring. But, due to factors such as acid-mine drainage, the mining of coal and the handling and disposal of associated mining wastes greatly increases the rate and quantity at which these contaminants are released to environmental media, particularly sediment, surface water, and groundwater within the Johnson Fork Receiving Watershed. What has been “locked-up” for millions of years is released from the parent material in a geologic instant. The underground environment in this mined region is complex in relation to geochemistry and hydrogeology. Groundwater flows will respond to pumping rates and the hydrologic cycle differently than that of undisturbed areas, generally more quickly. Changing oxidation conditions in the subsurface – also greatly influenced by mining – will cause significant fluctuations in contaminant chemistry, fate and transport.

Barring other influences, the flow of this contaminated water would be expected to follow natural gradients. As the above-drainage mines and mine-waste dumps in this watershed are above drainage, the natural gradients for contaminated groundwater would be into the surface water and valley floor groundwater systems and stream beds. At the hillside/valley floor interface, contaminants from individual mines and mine-waste dumps will commingle with contaminants introduced from upgradient sources, creating a single indivisible plume in the Johnson Fork Receiving Watershed valley floor sediments, groundwater and surface water system.

Although there is very little groundwater monitoring data in the watershed, the available data are consistent with adverse mining impacts. The PSD monitors its source water well on Johnson Fork and has noted a significant decrease in water quality since installation of the well in about 2012. These impacts are consistent with those caused by mining activities.

Additionally, a preliminary investigation was conducted of mine-waste dumps in the watershed and this investigation indicates that water associated with these dumps is impacted by mining-related contaminants, and that these dumps are not constructed in a way in which the environment is protected, including the protection of groundwater.

These mining activities have resulted in co-mingled plumes of contaminants in the local groundwater system and in the surface waters and sediments within the Johnson Fork Receiving Watershed. Documents and information currently demonstrate that these mining operations increased contaminant concentrations in groundwater and surface water and sediments. It appears that at various times from no later than the 1940's to present, the owners and operators of the Mining Companies caused or contributed to the past or present handling, storage, treatment,

transportation, or disposal of Hazardous Wastes,¹ and Solid Wastes,² including iron, manganese, aluminum, sulfate, and selenium in the environment at and emanating from the mining operations.

These activities have resulted in harm that is substantial and ongoing. These harms can be addressed by well-understood remedial technologies, after a complete remedial investigation in the Johnson Fork Receiving Watershed is completed to define the full nature and extent of the contamination.

Mining activities within the **Subject Watershed** by the Mining Companies were conducted above drainage (*i.e.*, up-gradient) mostly in the Powellton coal seam, mining of which is notorious for contaminating ground and surface waters with toxic pollutants if appropriate controls are not utilized and included disposal of wastes above drainage in open coal-waste dumps. This mining activity created mining waste and mine waste drainage which continues to this day, increasing the concentrations of toxic substances in groundwater and subsequently to the surface waters to which they are connected or in which such contaminants continue to migrate within the environment. This contaminant generation occurs in both the mined seams and in the waste material disposed of within or adjacent to these mining operations. Seepage of contaminants and contaminated groundwater continue to flow into surface waters in areas in which The Mining Companies operated. These discharges commingle with similarly contaminated groundwater from other mining operations in the adjacent valley aquifer and surface streams, forming a single surface water and groundwater plume and sediment plume. Mining activities by the Mining Companies

¹ As used herein, the term “Hazardous Waste” has the same definition as that provided in 42 U.S.C. § 6903(5), to wit: “a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may — (A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” For purposes of the “citizen suit” provisions of RCRA § 7002, 42 U.S.C. § 6972, the term “hazardous waste” is not limited to (though it may include) the administratively defined subset of hazardous wastes which Congress in RCRA § 3001(a), 42 U.S.C. § 6922(a) directed be “identified or listed by the Administrator” of USEPA solely for purposes of implementing RCRA Subtitle C, or which meet such similar criteria under the West Virginia hazardous waste program, *see* West Virginia Code § 22-18-6(a)(2). *See: Cordiano v. Metacon Gun Club, Inc.*, 575 F.3d 199, 205-06 (2nd Cir. 2009); Adam Babich, “RCRA Imminent Hazard Authority: A Powerful Tool for Businesses, Governments, and Citizen Enforcers,” 24 ELR 10122 (1994) (“Where the statutory language of RCRA simply refers to ‘hazardous wastes’ rather than to ‘hazardous waste identified or listed under this subchapter’ (*i.e.*, RCRA Subtitle C), the statute refers directly to the broader set of wastes meeting the governing statutory definition of hazardous wastes, rather than those which meet the criteria of being listed or characteristic hazardous wastes.”).

² As used herein, the term “Solid Waste” has the same definition as that provided in 42 U.S.C. § 6903(27), to wit “any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities. . . .” The term “solid waste” is not, for purposes of the “citizen suit” provisions of RCRA § 7002, 42 U.S.C. § 6972, limited to the narrower *regulatory* definition of solid waste, promulgated by regulation promulgated solely for purposes of implementing Subtitle C of RCRA. 40 C.F.R. § 261.1(b)(1). *Cordiano v. Metacon Gun Club, Inc.*, 575 F.3d 199, 205-06 (2nd Cir. 2009).

contaminated and continue to contaminate groundwater and surface water in the Johnson Fork Receiving Watershed.

Groundwater contaminated from mining activities and wastes disposed of in and around underground coal mines does not remain sealed in those mined areas or abandoned mine works but will migrate away from those areas due to long-recognized hydrogeologic features of mining-impacted regions. Additionally, coal and coal waste contain a plethora of organic and inorganic compounds that will certainly be a part of that migrating waste. Although the geochemistry of mined areas is complex, mining activities are known to increase the release of these contaminants to the environment. In this case, mining and mine-waste disposal activities by the Mining Companies has negatively impacted the surface and ground water resources in the Johnson Fork Receiving Watershed. This impact from The Mining Companies activities is cumulative and comingled with other mining impacts from similar operations.

This mining increased aeration within the layers in and around the mined seams. This aeration in effect jump-started and accelerated the oxidation of iron and sulfur minerals through chemical and biological processes. While normally stable, sulfide and iron minerals are oxidized by microorganisms at reaction rates several orders of magnitude greater than non-biologically mediated processes. Thus, while many of the elements required for oxidation of these minerals have been present since these layers were originally laid down, the introduction of air and more water into the subsurface through this mining greatly increased the rates at which these minerals are oxidized and are dissolved in groundwater by stimulating biological activity that continues to this day. Additionally, disposal practices by both historic and modern operations similarly increase the rates at which these contaminants are introduced into the environment. Mining activities by The Mining Companies created conditions by which it remains a significant source of contaminants in the Johnson Fork Receiving Watershed.

Fracture zones associated with heaving of mine floors and roof falls contribute to vertical fracturing, thereby connecting strata vertically from below the lowest mine works to the surface and greatly increasing secondary porosity in the mined area. From a water-supply standpoint, this fracturing dramatically changed the natural hydrogeologic system (flow of water within the environment) – from what was once a system dominated by shallow local aquifers defined by local topography to one in which vertical and horizontal connectivity that is vastly increased. The increase in fracturing and vertical and horizontal preferential pathways also contributed to significant changes in local geochemistry, increased porosity, changes in groundwater flows and volumes, and increased contact area between solutes and solvents (water). Mining activity by The Mining Company increased the connectivity of water contaminated by their activities to the surrounding groundwater and surface water environment.

The understanding concerning adverse environmental impacts from mining has developed during and following the Mining Companies' mining activities, as have the engineering and management controls to prevent or minimize these impacts. These technologies used to monitor and control water flow at mine sites include source control, diversion systems, containment ponds,

groundwater pumping systems, subsurface drainage systems, subsurface barriers, and engineered landfills. In the case of AMD, contaminated water is diverted to a treatment facility that neutralizes the contaminants.

The contaminants are the result of mining activities by the Mining Companies and other mining operations within the Johnson Fork Receiving Watershed, especially mining impacts to groundwater that is hydrologically connected to surface water. When contaminated groundwater from these mining activities is discharged or flows into streams or infiltrates into rock formations that are in communication with perched aquifers, these discharges will subsequently report to seeps and springs. Seeps and springs are affected by abandoned underground mines in the Johnson Fork Receiving Watershed. The underground voids left after removing the coal have resulted in a change in flow and quality of groundwater within the mine openings and the collection of water within these mines. Thus, increasing the interaction between the various contaminants, increasing the head (pressure) of the water, and the collective ability of these contaminants to adversely impact and flow or seep into groundwater and surface waters within the Johnson Fork Receiving Watershed. Water flowing through these voids continues to dissolve chemicals in the exposed surfaces of the void. This water contaminated by The Mining Companies discharges to the surface in the form of a spring or seep, or as flow at the groundwater/surface water interface.

Mining activities and unpermitted discharges by the Mining Companies and abandoned mines and coal-waste dumps and past mining activities have caused impairments to or contributed to impairments of the Johnson Fork Receiving Watershed and have commingled with more modern mining activities within the groundwater, surface water system, and sediments within the Loop Creek Watershed. This contaminated surface water and groundwater and sediments form a commingled plume with groundwater and surface water from other tributaries to the greater Loop Creek Watershed. The contaminants in Johnson Fork Receiving Watershed caused or contribute to the impairments of greater Loop Creek, a WV § 303d listed impaired stream.

In addition to the known acid mine drainage impacts to groundwater and surface water associated with the mining, the Mining Companies conducted other activities that impact groundwater. Most notably, they operated mine waste disposal areas. These mine-waste dumps received waste from mining and coal handling activities. These coal-waste dumps are unlined, therefore some of the waste flowing through them is discharged into the surrounding groundwater system. All discharges from the mine-waste dumps into the groundwater system are unpermitted. The waste disposal areas are above drainage, therefore groundwater in contact with and/or flowing through the mine-waste dumps is also connected to surface water.

Dumps containing mining wastes that resulted from the extraction or procession of coal ores and minerals were created by the Mining Companies on the surface of lands within the Subject Watershed. Each of these dumps constitutes an "open dump."³ Each of these dumps are not

³ As used herein, the term "open dump" has the same definition as that provided in 42 U.S.C. § 6903(14), to wit "open dump" means any facility or site where solid waste is disposed of which is not a sanitary landfill which

constructed or operated in a way in which the environment is protected, including the protection of groundwater. Groundwater and surface water associated with these dumps has been since their creation, are being, and until properly remedied will continue to be adversely impacted by mining-related contaminants and contribute to groundwater and surface water impacts from other operations. The West Virginia Department of Environmental Protection (“WVDEP”) describes the dump(s) as “refuse piles”. WV 38CSR2 defines “Coal Refuse Site means a deposit of coal processing waste or underground development waste” and that “Coal Processing Waste means materials which are separated and wasted from the product coal during its physical or chemical processing, cleaning or concentrating”. Each of these “Open Dump” containing mining waste in the subject Watershed were created and maintained by the disposal of mining wastes resulting from the processing or underground development of coal ores and minerals, which contain waste ores and minerals, that were dumped on the surface of the land with no intention of “return to the mine site” of the underground works. Each of these “Open Dumps” present a condition of Public Nuisance and an actual or imminently threatened harm and endangerment to health or the environment within the **Subject Watershed**. The endangerments to health and the environment that have been created and contributed to, and that are continuing to be caused and contributed to by the past storage and disposal of Solid Wastes & Hazardous Wastes, including the past creation of “Open Dumps” containing those wastes, continue to exist within the **Subject Watershed**.

This mining activity caused and continues to cause acid mine drainage to this day, increasing the concentrations of toxic substances in groundwater and subsequently to the surface waters to which they are connected within the Johnson Fork Receiving Watershed and to the sediments within the Johnson Fork Receiving Watershed. As a result of this contamination, this contaminated groundwater poses an endangerment to human health and the environment. Additionally, this contamination has contributed to degradation of surface waters to the point that they can no longer meet their designated uses under the Clean Water Act and appear on the WV 303(d) list of impaired waters.

The full nature and extent of the contamination and impact from these operations is not entirely known. Fully defining the impact of these operations will require a full and complete remedial investigation. This remedial investigation will likely identify additional contaminants of concern or the combination of contaminants of concern and this Notice intended to require the Mining Companies and landowners to identify all such contaminants that are adversely impacting or may be impact human health or the environment.

The Responsible Parties are responsible for releasing, discharging, creating, maintaining, and leaving in place environmental conditions that pose or may pose an imminent and substantial endangerment to public health and the environment. As an owner or operator of a mining company operating in the Johnson Fork Receiving Watershed, the Mining Companies caused or contributed to the contamination that is located at and emanating from the Johnson Fork Receiving Watershed by handling, discarding, discharging, spilling, or releasing multiple contaminants so that the contaminants entered into the environment. These contaminants are continuing to migrate in the

meets the criteria promulgated under section 4004 [42 U.S.C. § 6944] and which is not a facility for disposal of hazardous waste.

environment causing further endangerments to health and the environment and property damage to the groundwater and surface water and sediments within the Subject Watershed. Moreover, the presence of these released contaminants in the environment present or may present an imminent and substantial endangerment to health or the environment, including the surface and sub-surface soils, groundwater aquifers, and natural resources.

III. SPECIFIC ENDANGERMENTS CAUSED BY THE OPERATIONS OF THE MINING COMPANIES:

The endangerments to the environment from these mining activities includes loss and continued degradations of biodiversity in the receiving stream, and contamination of sediments, soil, groundwater and surface water by contaminants released or discharged by these mining activities which generated, used, handled, transported, stored, discharged or released the waste, solid waste, toxic substances, hazardous substances, or hazardous materials which have harmed and will continue to harm the environment, create and continue to create a threat to human health and the environment, and unabated will continue to migrate within the environment. Contaminants in the watershed are easily absorbed by fish and other aquatic organisms. Small concentrations can be toxic because some contaminants bioconcentrate. Toxicity also produces adverse biological effects on an organism's survival, activity, growth, metabolism, or reproduction. Contaminants can be lethal or harm the organism without killing it directly. Adverse effects on an organism's activity, growth, metabolism, and reproduction are examples of these sublethal effects. Some of the contaminants of concern, are also bio-accumulated within the in plants and animals which are in direct or indirect contact with the food chain and adversely impact the health of these organisms and organisms which feed upon those organisms.

Besides creating environmental endangerments and damage, the Solid Waste and Hazardous Waste contamination resulting from these activities results in the endangerment to the health of the local population, as this contaminated groundwater is the primary source of drinking water in the area.

The Johnson Fork Receiving Watershed, and Loop Creek of which Johnson Fork is a tributary, are popular for recreational and aesthetic purposes, including but not limited to swimming, fishing, hunting, and sightseeing. Impacts from mining have rendered Johnson Fork and Loop Creek unsuitable for these activities.

In addition to these known and possible adverse impacts to human health and the environment, the degradation of these streams and subsequent § 303(d) listing as such may hamper any future economic development in these watersheds, as any discharge permits issued under the Clean Water Act may face more stringent permit conditions verse development on a stream that is not degraded.

Unabated, these adverse impacts will not only continue, but threaten to further degrade not only the greater Johnson Fork/Loop Creek watershed, but also the Upper Kanawha River.

Abatement options to minimize these adverse impacts are common and available and would be defined in a feasibility study, following a determination of the full nature and extent of the impacts as defined in a remedial investigation.

Although the full nature, extent, and impact of the contamination caused by the operations of the Mining Companies and landowners is not entirely known, some of the known contaminants of concern in the groundwater and surface water in the Johnson Fork Receiving Watershed and their impact on human health and the environment are:

Iron

Exceedances of Safe Drinking Water Act Standards for iron are documented in the PSD groundwater source on Johnson Fork, and iron precipitates have been observed associated with Coal-waste dumps within the watershed. Precipitation of ferric hydroxide may result in a complete blanketing of the stream bottom, adversely affecting both macroinvertebrates and fish. Because the gill surface of the fish tends to be alkaline, soluble ferrous iron can be oxidized to insoluble ferric compounds which then cover the gill lamellae and inhibit respiration. At a low water temperature and in the presence of iron, iron-depositing bacteria will multiply rapidly on the gills and further contribute to the oxidation of ferrous iron compounds. Their filamentous colonies cover the gills. The precipitated iron compounds and tufts of the iron bacteria reduce the gill area available for respiration, damage the respiratory epithelium and may thus suffocate the fish. In a similar toxic action, iron compounds can precipitate on the surface of fish eggs which then die due to a lack of oxygen.

Manganese

Manganese is another metal that is widely distributed in mine drainage. It can be present in a variety of forms and compounds and complexes with organic compounds. Manganese is persistent and can be carried for long distances downstream of a source of mine drainage. Manganese precipitates along with siltation significantly lower macroinvertebrate species diversity and change stream community structure. Manganese is an essential trace element in humans that can elicit a variety of serious toxic responses upon prolonged exposure to elevated concentrations either orally or by inhalation. The central nervous system is the primary susceptible target. Because of the greater bioavailability of manganese from water, a chronic and sub-chronic RfD for drinking water of 0.005 mg/kg/day has been calculated by EPA.

pH

Aquatic life is adapted to the natural pH levels in their bodies of water, and even slight changes in pH can have negative impacts on the health of the aquatic community. Moderate changes in pH can affect fish egg production, fish and insect gills, and amphibian populations. A change in the pH of water can alter the behavior of other chemicals in the water, and many heavy metals dissolve in acidic water. Most freshwater streams have a natural pH in the range of 6 to 8. Acid deposition has many harmful ecological effects when the pH of most aquatic systems falls below 6 and especially below 5. Discharges associated with mine-waste dumps in the watershed have pH below 5.

Aluminum

Of the three major metals present in mine drainage, aluminum has the most severe adverse effects on stream aquatic life. Elevated levels of aluminum can affect some species ability to regulate ions, like salts, and inhibit respiratory functions, like breathing. Aluminum can accumulate on the surface of a fish's gill, leading to respiratory dysfunction, and possibly death. Aluminum rarely occurs naturally in water at detectable concentrations; however, higher concentrations can occur as a result of drainage from coal mining. The finding of a significant positive relationship between drinking water aluminum levels and the development of Alzheimer's Disease in a recent large prospective study, together with the finding of a positive relationship in a number of less methodologically sound studies, suggests that the association between aluminum and AD should be further investigated.

Sulfate

Sulfate is an indicator of mining impacts to surface waters. USGS reports background concentrations in WV streams to be less than 25 mg/L. Streams in this watershed are much higher, and data indicates sulfate concentrations exceed the level WVDEP considers a likely stressor to aquatic life.

Arsenic

Arsenic has been linked to a number of cancers and has been found within the PSD system. These include cancer of the bladder, lungs, skin, kidney, nasal passages, liver, and prostate. USEPA set the arsenic standard for drinking water at 10 ppb (or 0.010 parts per million). Arsenic is a teratogen and carcinogen that can traverse placental barriers and produce fetal death and malformations in many species of mammals. Many species of freshwater biota are adversely affected by high concentrations of arsenic or various organ arsenicals. These adverse effects include death and malformations of toad embryos, growth inhibition of algae, mortality of amphipods and gastropods, and behavioral impairment of goldfish.

In addition to those contaminants now known to exist in the environmental media in and surrounding Johnson Fork or which have been found in sampling of media in or effecting the Johnson Fork Receiving Watershed, the parties providing this notice believe, based on the mining methods and procedures employed by the Mining Companies, that the following additional contaminants will likely or could potentially be found in the ground water and surface waters and sediments of the Johnson Fork Receiving Watershed:

Acidity	Magnesium	Total Suspended Solids
BOD	Nitrate	Acrylamide
Cadmium	Nitrite	Benzene
Calcium	Potassium	Toluene
Chloride	Sodium	Ethylbenzene
COD	Specific Conductivity	Xylene
Lead	Total Dissolved Solids	

Cumene(Isopropyl	TOC	Fluoride
Benzene)	Vinyl Chloride	Mercury
Ethylene Glycol	Barium	Selenium
Benzo[a]pyrene	Boron	Silver
Phenols	Chromium	Thallium
(TPH) GRO, DRO, and	Copper	Zinc
ORO	Cyanide	

Simply stated, the various waste, Solid waste, Hazardous Wastes, and Hazardous Substances used, stored, handled, generated, stored, transported by the landowners and Mining Companies within the Johnson Fork Watershed have mixed and combined within and during the mining operations, the mining operations waste stream, or within the environment and have caused and will continue to harm to or threaten the human health and the environment until the released and discharged contaminants have been abated. Thus, these contaminants from the Mining Companies operations and the presence, concentration, location, and distribution of all of these contaminants in the environment present or may present an imminent and substantial endangerment to health or the environment under RCRA. Accordingly, the remedial investigation that should be performed to assess site conditions and actual or threatened endangerments to health or the environment, and evaluate alternatives to the extent necessary to select an appropriate remedy for abating the threat of the imminent and substantial endangerments to the human health and the environment within the Johnson Fork Receiving Watershed that have resulted, and are continuing to result, from such operations should, at a minimum, include adequate sampling for such additional contaminants, as well as any others that may be identified in the Environmental Site Evaluation that should proceed the Remedial Investigation required to address the imminent and substantial endangerments to health and the environment that are, and that may be, presented at or emanating from the mining operations within the Subject Watershed.

IV. PERSONS GIVING NOTICE

The full name, address and telephone number of the person giving this notice is:

County Commission of Fayette County, West Virginia
100 North Court Street
Fayetteville, WV 25840
Telephone: (304) 574-4228

The name, address and telephone number of legal counsel representing the Person giving this notice is:

Michael O. Callaghan (WV Bar No. 5509)
Chief Assistant Fayette County Prosecuting Attorney
OFFICE OF THE FAYETTE COUNTY PROSECUTING ATTORNEY
ENVIRONMENTAL & PUBLIC HEALTH PROTECTION UNIT
Neely & Callaghan
159 Summers Street

Charleston, WV 25301
Telephone: (304) 343-6500
Facsimile: (304) 343-6528
mcallaghan@neelycallaghan.com

V. CLAIMANTS' INTENTION TO FILE SUIT

Claimant demands that the **Responsible Parties**, jointly and severally, forthwith take all actions required competently and timely to respond to the actual and threatened imminent and substantial endangerments to health or the environment described herein that are or may be presented within the **Subject Watershed**. The Remedial Investigation and cleanup actions taken must be sufficient adequately to investigate and abate the full extent of the imminent and substantial endangerment, or threatened imminent and substantial endangerment, to human health or the environment to appropriate levels that are adequately protective of the Public Health, Safety, Welfare and the Environment. If the Responsible Parties, or any one of the them, fail timely and appropriately to respond to this Notice, and neither the United States nor the State of West Virginia timely commence or undertakes one or more of the acts or actions described in RCRA § 7002(b)(2)(B) or (C), Claimant intend to commence a civil action, pursuant to RCRA and other applicable provisions of law, compelling one or all of the Responsible Parties timely and competently to investigate and remediate, as determined appropriate by the Court, the releases and discharges of hazardous substances into the environment and all imminent and substantial endangerments to health and the environment that are or may be presented resulting, in whole or in any substantial part, from the contributions of the Responsible Parties to the management, handling or disposal of Solid Wastes and Hazardous Wastes at and emanating from the Site identified herein.

VI. OBLIGATION TO PRESERVE EVIDENCE

Upon receipt of this notice, you have a duty to preserve all evidence, including electronically stored information, that may be relevant to: (1) insurance; (2) corporate records; (3) ownership and operations of mine sites and the mining operations including all leases of the property; (4) contracts relating to the companies' operations and ownership and finances; (5) employees and vendors relating to the operations and the business; and (6) any other information that relates or potentially relates to the alleged contamination at and emanating from the property, facility, the identification or abatement of endangerments to health or the environment at or emanating from the mining operations within the Subject Watershed, or general practices by any of the Responsible Parties.

VII. TIME TO ABATE AND SETTLE

Please contact counsel for Claimants to discuss the content of this letter at your earliest convenience. We are hopeful that this matter can be resolved without any need for litigation. If litigation becomes necessary, however, the **Governmental Claimant** will, in addition to vigorously pursuing all necessary and proper remedial investigation and abatement activities required to secure adequate protection of the Public Health, Safety, Welfare and the Environment

pursue reimbursement for all investigation, cleanup and litigation costs incurred, including attorneys' fees, as well as other damages and available remedies.

LARRY E. HARRAH II, ESQ.
FAYETTE COUNTY PROSECUTING ATTORNEY

By:


Michael O. Callaghan, Esq.
Chief Assistant Fayette County Prosecuting Attorney
Environmental & Public Health Protection Unit

cc: Attorney General of the United States of America
Attorney General of the State of West Virginia
Cosmo Servidio, Regional Administrator for Region Three, U.S. Environmental Protection Agency
Austin Caperton, Cabinet Secretary West Virginia Department of Environmental Protection on behalf of the Vacant Director, Water and Waste Management

EXHIBITS ATTACHED:

EXHIBIT 1: List of persons receiving notice.

EXHIBIT 2-7: Johnson Fork watershed and mining activity

EXHIBIT 1

Recipients of Copy of Notice of Endangerment

Via Certified Mail (7018 1130 0002 3182 9673)

Andrew Wheeler
Administrator
U.S. Environmental Protection Agency / Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Via Certified Mail (7018 1130 0002 3182 9680)

Cosmo Servidio,
Regional Administrator for Region Three, U.S. Environmental Protection Agency
1650 Arch Street
Philadelphia, PA19103

Via Certified Mail (7018 1130 0002 3182 9697)

Austin Caperton
Cabinet Secretary, West Virginia Department of Environmental Protection, and
on behalf of the Vacant Director, Water and Waste Management
601 57th Street SE
Charleston, WV 25304

Via Certified Mail (7018 1130 0002 3182 9703)

William P. Barr,
Attorney General, United States of America
950 Pennsylvania Ave NW
Washington, DC 20530

Via Certified Mail (7018 1130 0002 3182 9710)

Patrick Morrissey,
Attorney General, West Virginia
State Capitol Complex, Bldg 1, Room E-26
Charleston, WV 25305

EXHIBIT 2

WDEP GIS Viewer V2.1 Technical Application and GIS Unit

Search data or location

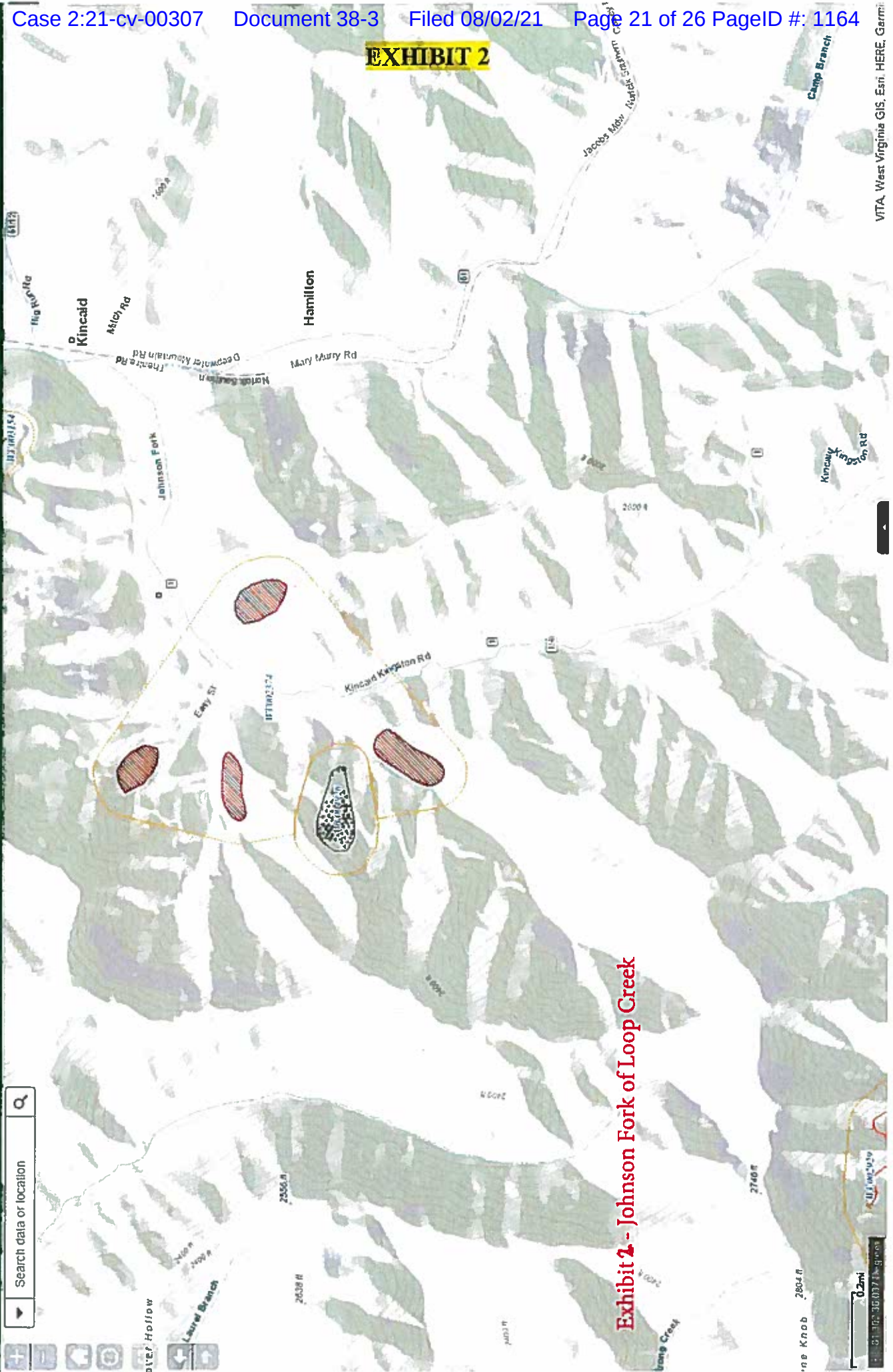
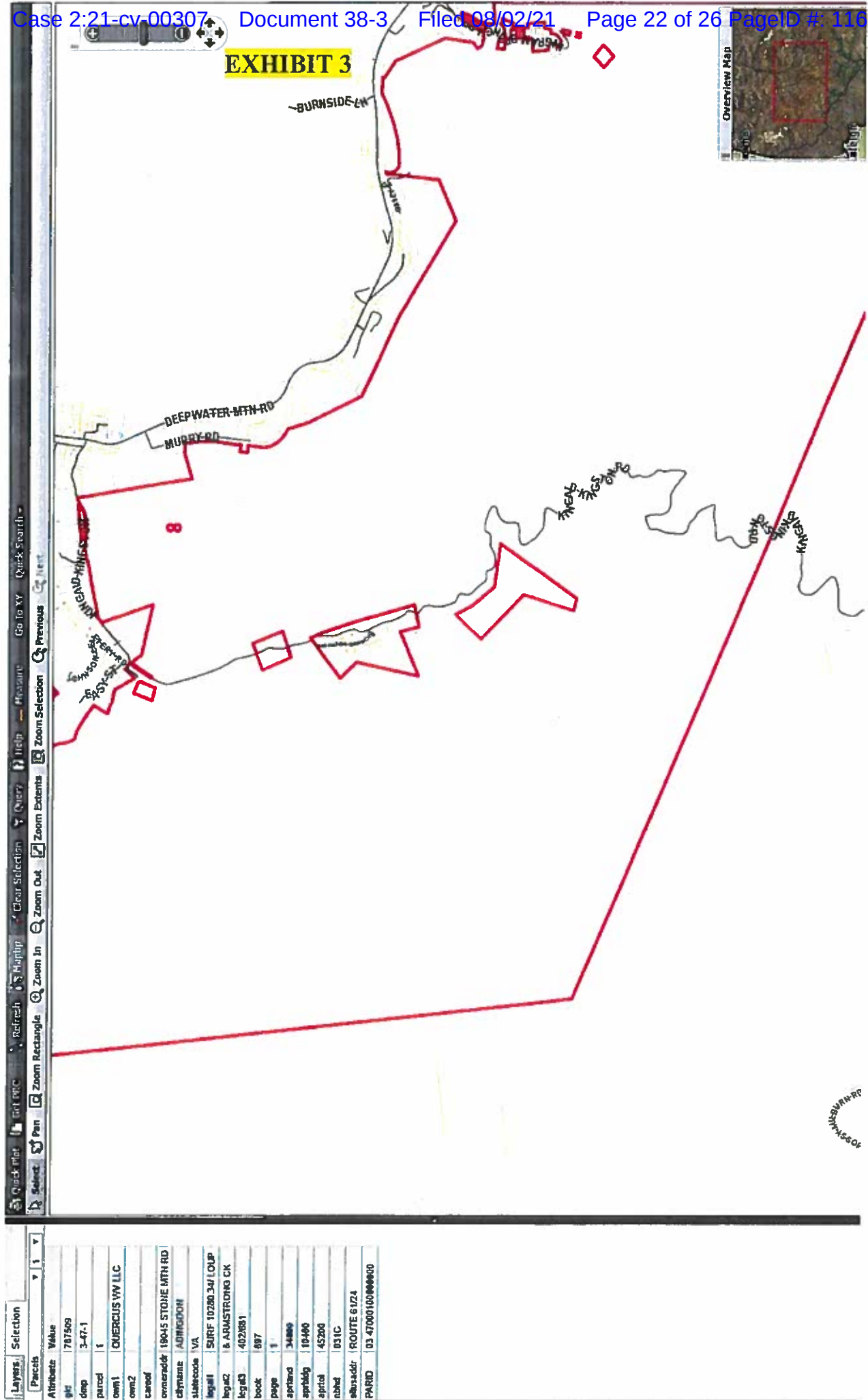


Exhibit 2 - Johnson Fork of Loop Creek



Underground and Surface Coal Mines



Coal Bed Mapping Project
Coverage Explanation
Map Help & Tips

Layer/Legend Tools Basemap

Use the slider bar to adjust transparency.

Reference

- ☒ Mask Other States
- ☐ Tax Districts
- ☐ Tax District Labels
- ☐ County Labels
- ☐ Counties
- ☐ Planning & Development Regions
- ☐ State Boundary
- ☒ WV Coal Mining

- ☐ Underground Mining Labels
- ☒ Underground Mining
- ☒ Surface Mining
- ☐ Surface Mine
- ☐ Airport & Road
- ☐ Highway Mile

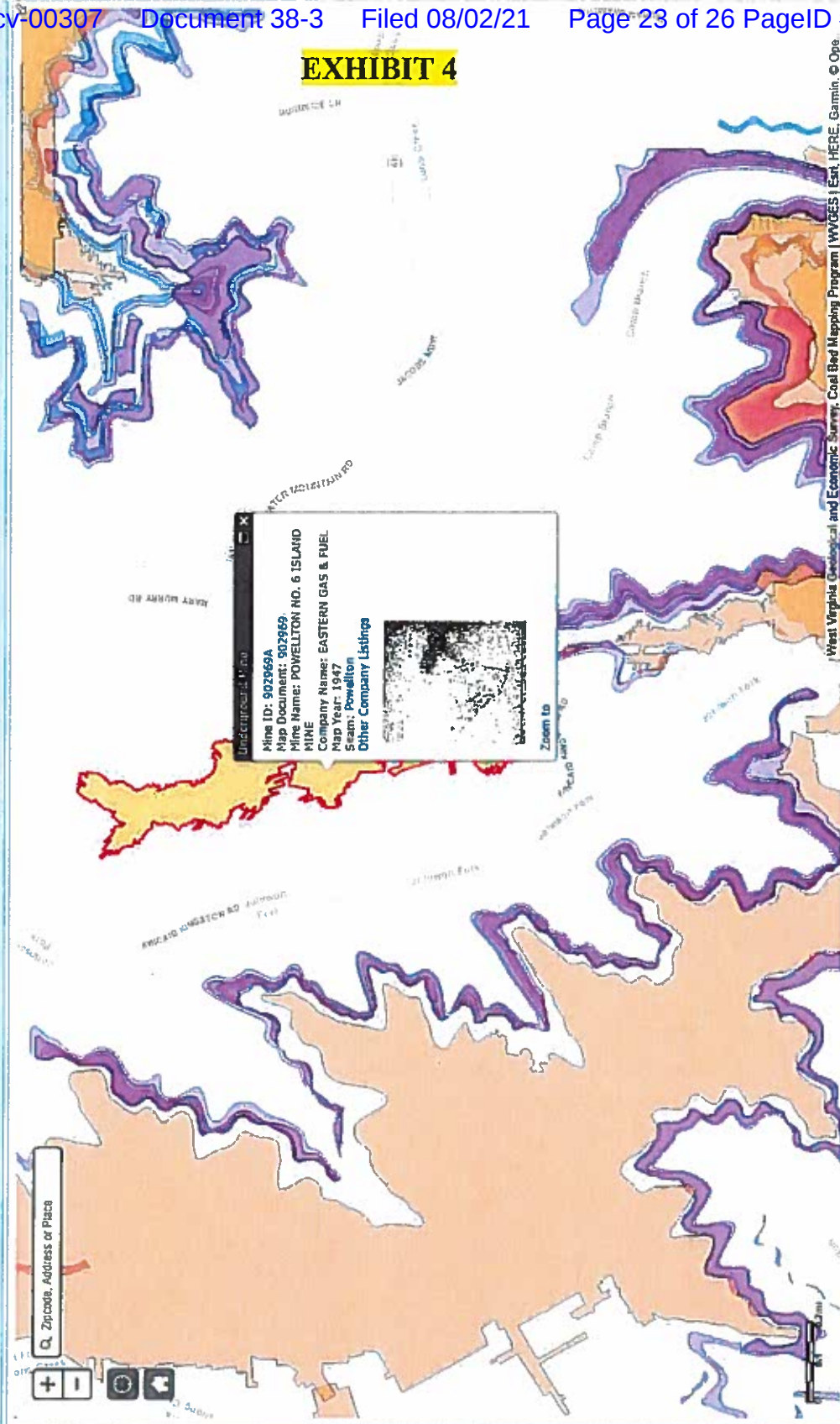


EXHIBIT 4

West Virginia Geological and Economic Survey, Coal Bed Mapping Program | WVGES | East, HERE, Garmin, © OpenStreetMap contributors, CC-BY, Imagery © Mapbox



Underground and Surface Coal Mines



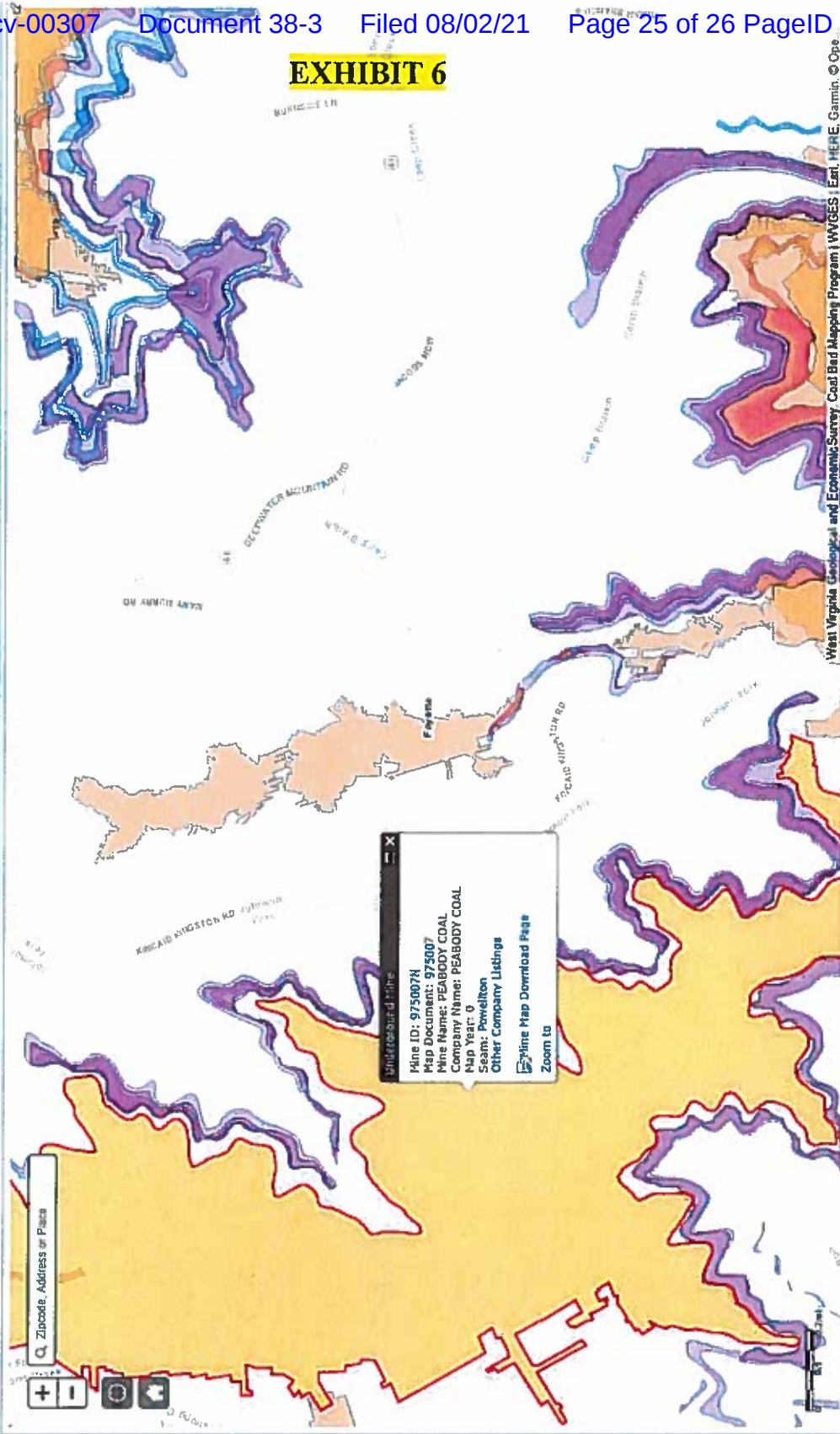
Layer/legend Tools Basemap

Use the slider bar to adjust transparency

Reference

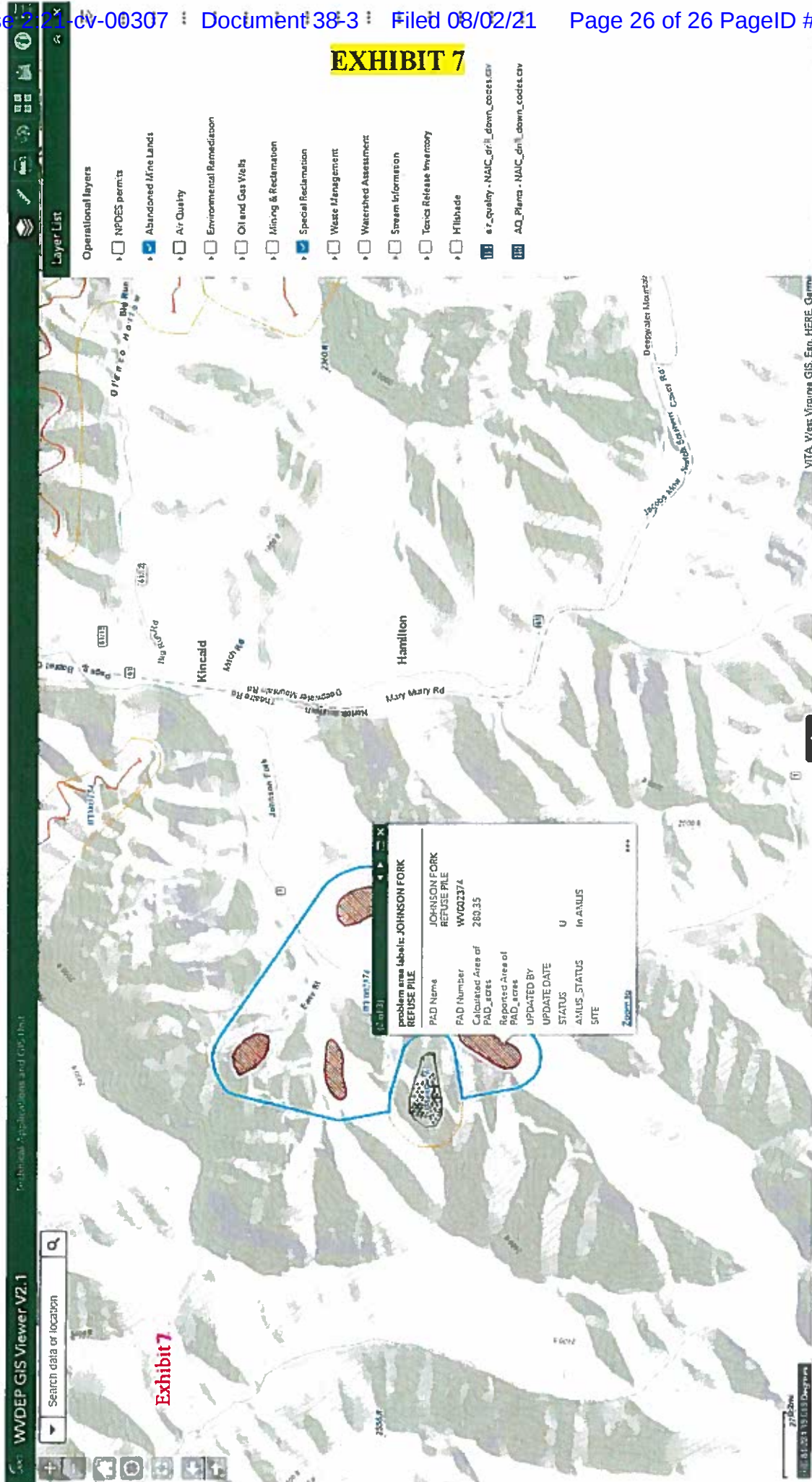
- ☒ Mask Other States
- ☐ Tax Districts
- ☐ Tax District Labels
- ☐ County Labels
- ☒ Counties
- ☐ Planning & Development Regions
- ☒ State Boundary
- ☒ WV Coal Mining

- ☐ Underground Mining Labels
- ☒ Underground Mining
- ☒ Surface Mining
- ☐ Surface Mines
- ☐ Auger Mines
- ☐ Highwall Mines



Coal Bed Mapping Project
 Coverage Extensions
 Map Help & Tools

West Virginia Geological and Economic Survey Coal Bed Mapping Program | WVGES | East, HERE, Garmin, © OpenStreetMap contributors, CC-BY, Imagery © Mapbox

EXHIBIT 7**Exhibit 7**